CLAIMS:

1. A method of preparing a liquid for a semiconductor fabrication process comprising:

providing a liquid; and

injecting a gas into the liquid to increase a total dissolved gas concentration in the liquid to greater than or equal to 200 ppb.

2. The method of claim 1 wherein the semiconductor fabrication process is a polishing process.

3. The method of claim 1 wherein the semiconductor fabrication process is a polishing process and the liquid comprises water.

4. The method of claim 1 wherein the semiconductor fabrication process is an etch process.

5. The method of claim 1 wherein the semiconductor fabrication process is a wet etch process and the liquid comprises water.

6. A semiconductor wafer fabrication process sequentially comprising:

degassifying a liquid to a dissolved oxygen concentration of less than 200 ppb;

regassifying the liquid with a regassifying gas to a regassifying gas concentration of greater than 200 ppb; and

applying the liquid onto a surface of a semiconductor wafer.

7. The process of claim 6 wherein the applying comprises providing the liquid intermediate a moving polishing and a semiconductor wafer against which moving polishing pad is received.

8. The process of claim 6 wherein the regassifying comprises injecting gas under pressure into the liquid.

9. The process of claim 6 wherein the regassifying gas does not include oxygen.

10. The process of claim 6 wherein the regassifying comprises regassifying to a regassifying gas concentration of greater than 500 ppb.

11. A method of cleaning a polishing slurry from a substrate surface comprising:

providing a substrate surface having a polishing slurry in contact therewith;

providing a liquid;

injecting a gas into the liquid to increase a total dissolved gas concentration in the liquid; and

providing the liquid with the increased total dissolved gas concentration against the substrate surface to displace the polishing slurry from the substrate surface.

12. The method of claim 11 wherein the liquid comprises deionized water.

13. The method of claim 11 wherein the liquid consists essentially of deionized water having some gas dissolved therein.

14. The method of claim 11 wherein the liquid consists essentially of deionized water having some gas dissolved therein, and wherein the substrate is a semiconductive wafer.

15. The method of claim 11 wherein the injecting the gas into the liquid comprises flowing pressurized gas through a gas dispersion unit and into the liquid.

16. The method of claim 11 further comprising:

before the injecting, removing dissolved gas from the liquid to reduce a total dissolved gas concentration within the liquid.

17. A method of polishing a substrate surface comprising:

providing a polishing slurry between a substrate surface and a polishing pad;

polishing the substrate surface with the polishing slurry; and

removing the polishing slurry from the substrate surface, the removing comprising:

providing a liquid;

injecting a gas into the liquid to increase a total dissolved gas concentration in the liquid; and

providing the liquid with the increased total dissolved gas concentration between the substrate surface and the polishing pad to displace the polishing slurry from the substrate surface.

18. The method of claim 17 wherein the polishing pad spins relative to the substrate surface as the liquid is provided between the substrate surface and the polishing pad.

19. The method of claim 17 wherein the polishing comprises chemical-mechanical polishing.

20. The method of claim 17 wherein the injecting the gas into the liquid comprises flowing pressurized gas through a gas dispersion unit and into the liquid.

21. The method of claim 17 wherein the liquid comprises deionized water.

22. The method of claim 17 wherein the liquid consists essentially of deionized water having some gas dissolved therein.

23. A method of polishing a substrate surface comprising:

providing a polishing slurry between a substrate surface and a polishing pad;

polishing the substrate surface with the polishing slurry; and

removing the polishing slurry from the substrate surface, the removing comprising:

providing a liquid;

removing a first gas from the liquid to reduce a total dissolved gas concentration in the liquid;

after the removing the first gas, dissolving a second gas in the liquid to increase the total dissolved gas concentration in the liquid; and

after the dissolving, providing the liquid between the substrate surface and the polishing pad to displace the polishing slurry from the substrate surface and thereby remove the polishing slurry from the substrate surface.

24. The method of claim 23 wherein the substrate is a semiconductive wafer.

25. The method of claim 23 wherein the polishing comprises chemical-mechanical polishing.

26. The method of claim 23 wherein the first gas comprises a different composition than the second gas.

27. The method of claim 23 wherein the removing reduces a total dissolved oxygen concentration in the liquid to below 200 ppb, and wherein the dissolving comprises dissolving nitrogen gas in the liquid to a concentration of at least 500 ppb.

28. The method of claim 23 wherein the liquid comprises deionized water.

29. The method of claim 23 wherein the liquid consists essentially of deionized water having some gas dissolved therein.

30. The method of claim 23 wherein the dissolving comprises flowing pressurized second gas through a gas dispersion unit and into the liquid.

31. The method of claim 23 wherein the dissolving comprises flowing pressurized second gas through a gas dispersion unit and into the liquid as the liquid flows past the gas dispersion unit, the liquid being contained in a tube at a point at which the liquid meets the second gas coming from the gas dispersion unit.

32. The method of claim 23 further comprising:

before providing the polishing slurry between the substrate surface and the polishing pad, rinsing the substrate surface with the liquid.

33. A chemical-mechanical polishing process comprising:

providing a semiconductive wafer substrate proximate a polishing pad, the semiconductive wafer substrate comprising a substrate surface;

providing a polishing slurry between the substrate surface and the polishing pad;

chemical-mechanical polishing the substrate surface with the polishing slurry, the chemical-mechanical polishing comprising moving the substrate surface relative to the polishing pad; and

removing the polishing slurry from the substrate surface, the removing comprising:

providing a deionized and degassed water, the deionized and degassed water having a resistance of greater than 200 kohms and a dissolved oxygen concentration of less than 200 ppb;

injecting a gas into the water to a concentration of at least 450 ppb, the injecting comprising providing a pressurized source of the gas and flowing the pressurized gas through a gas dispersion unit and into the water at a location where the water is contained within a pipe; and

after the injecting, providing the water between the substrate surface and the polishing pad to displace the polishing slurry from between the substrate surface and the polishing pad, and to thereby remove the polishing slurry from the substrate surface.

34. The process of claim 33 further comprising cleaning the substrate surface before providing the polishing slurry, and wherein the substrate surface is cleaned with the water after the gas has been injected into the water.

35. The process of claim 33 wherein the gas does not comprise oxygen.

36. A polishing system comprising:

a wafer holder for holding a semiconductive wafer;

a polishing pad for polishing a surface of the wafer when a polishing slurry is provided between the polishing pad and the surface of the wafer, the wafer holder being movable relative to the polishing pad;

a source of degassed water, the degassed water having less than 200 ppb of total dissolved gasses and being provided to flush polishing slurry from between the polishing pad and the surface of the wafer after a polishing the surface of the wafer with the polishing pad;

a pipe through which the degassed water flows;

a source of gas in fluid communication with the pipe through which the degassed water flows;

a gas dispersion unit between the source of gas and the pipe through which the degassed water flows; and

wherein the gas dispersion unit and the pipe are configured so that a degassed water flowing through the pipe is contained within the pipe at a location wherein the degassed water meets a gas flowing from the gas dispersion unit.

37. The system of claim 36 further comprising a tee where the gas flowing from the gas dispersion unit meets the degassed water flowing through the pipe.

38. The system of claim 36 wherein the gas dispersion unit comprises a sintered filter.

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